

App. Serial No. 10/518,736
Docket No.: NL020528US

Remarks

Claims 1-12 are pending in this application. Reconsideration and allowance of the application are respectfully requested.

The instant Office Action dated May 30, 2007 indicated that claims 3, 5 and 11 are objected to, that claims 1-6 and 9-12 stand rejected under 35 U.S.C. 102(b) over Chen (U.S. Patent No. 6,130,129), and that claims 7-8 stand rejected under 35 U.S.C. 103(a) over Chen.

Applicant respectfully traverses that Section 102(b) rejection of claims 1-6 and 9-12 because the cited portions of the Chen reference do not correspond to claim limitations directed to first forming isolation zones in the substrate and thereafter forming a floating gate on the substrate between two of the isolation zones. The cited portions of the Chen reference teach that poly-1 layer 12 (which ultimately forms the main part of the floating gate) is formed on substrate 1 as part of stacked multilayer 10, that multilayer 10 and substrate 1 are subsequently etched to form towering structure 20 and recess/trench 21, and that field oxide layer 22 is then deposited in recess 21. *See, e.g.*, Figures 1-4 and Col. 5:20-47. Thus, Chen teaches forming floating gate 25 and then forming isolation zone 22 in substrate 1, instead of first forming the isolation zones and subsequently forming the floating gate as required by the claim limitations. Accordingly, the Section 102(b) rejection of claims 1-6 and 9-12 is improper and Applicant requests that it be withdrawn.

Applicant further traverses the Section 102(b) rejection of claim 2 because the cited portions of Chen do not correspond to claim limitations directed to forming recesses in the isolation zones under the opposite walls of the floating gate. The Office Action cites to Chen's recess 21 and oxide layer 22 as allegedly corresponding to the claimed recesses and isolation zones respectively. However, Chen teaches that recess 21 is etched in multilayer 10 and substrate 1, and that oxide layer 22 is then deposited in recess 21. *See, e.g.*, Figures 1-4 and Col. 5:20-47. Thus, the Office Action's assertion of correspondence is illogical, in that the claim limitations require that the recesses be formed in the isolation zones. Thus, the Section 102(b) rejection of claim 2 is improper and Applicant requests that it be withdrawn.

Applicant further traverses the Section 102(b) rejection of claim 3 because the cited portions of Chen do not correspond to claim limitations directed to depositing a floating gate

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layer after forming isolation zones in the substrate. The Office Action cites to Chen's poly-1 layer 12 as allegedly corresponding to the claimed floating gate layer. However, as discussed above, Chen teaches that poly-1 layer 12 is formed on substrate 1 as part of stacked multilayer 10, that multilayer 10 and substrate 1 are subsequently etched to form towering structure 20 and recess/trench 21, and that field oxide layer 22 is then deposited in recess 21. *See, e.g.*, Figures 1-4 and Col. 5:20-47. As such, Chen teaches depositing poly-1 layer 12 and then forming isolation zone 22 in substrate 1, instead of first forming the isolation zones and then depositing the floating gate layer as required by the claim limitations. Therefore, the Section 102(b) rejection of claim 3 is improper and Applicant requests that it be withdrawn.

Applicant further traverses the Section 103(a) rejection of claims 7 and 8 because the Office Action has provided no evidence of motivation to modify the Chen reference. This approach is contrary to the requirements of Section 103 and relevant law. "A patent composed of several elements is not proved obvious merely by demonstrating that each element was, independently, known in the prior art." *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (U.S. 2007). The Office Action asserts that one of skill in the art would modify Chen to use STI or LOCUS as different means of isolation simply based on a further assertion that these isolation techniques are well known. Thus, the Office Action has not provided any evidence as to why one of skill in the art would modify Chen to use STI and LOCUS isolation techniques. Applicant submits that the Office Action appears to be improperly resorting to hindsight reconstruction based upon Applicant's disclosure in an attempt to arrive at a combination that corresponds to the claimed invention. *See, e.g.*, M.P.E.P. § 2142. In view of the above, the Office Action has not provided any evidence as to why one of skill in the art would find the asserted combination obvious as required. Thus, the Section 103(a) rejection of claims 7 and 8 is improper and Applicant requests that it be withdrawn.

Moreover, Applicant traverses the Office Action's assertion that STI and LOCUS isolation techniques are well known to one of skill in the art. The Office Action appears to be taking official notice that these isolation techniques are well known. However, according to M.P.E.P. § 2144.03, "It would not be appropriate for the examiner to take official notice of facts without citing a prior art reference where the facts asserted to be well known are not capable of instant and unquestionable demonstration as being well-known."

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Applicant submits that due to the lack of a citation to a prior art reference in support of the assertion that STI and LOCUS isolation techniques are well known to one of skill in the art, the Section 103(a) rejection of claims 7 and 8 is improper and must be withdrawn. Should any rejection based upon the Chen reference be maintained, Applicant respectfully requests support for the assertion that STI and LOCUS isolation techniques are well known to one of skill in the art and evidence of why one of skill in the art would modify the Chen reference to use these techniques.

Regarding the objection to claims 3, 5 and 11, Applicant has amended claims 3 and 5 to include commas between their respective limitations as suggested by the Office Action and Applicant has amended claim 11 to correct the typographical error in the word patterning. Thus, Applicant requests that the objection to claims 3, 5 and 11 be removed.

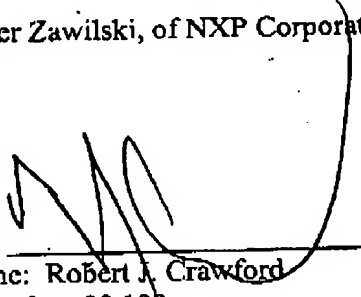
Applicant notes that minor amendments have also been made to claims 1-2 and 4 to improve readability. These amendments are not being made to overcome the rejections raised by the Office Action, which fail for the reasons discussed above.

In view of the remarks above, Applicant believes that each of the rejections has been overcome and the application is in condition for allowance. Should there be any remaining issues that could be readily addressed over the telephone, the Examiner is asked to contact the agent overseeing the application file, Peter Zawilski, of NXP Corporation at (408) 474-9063 (or the undersigned).

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